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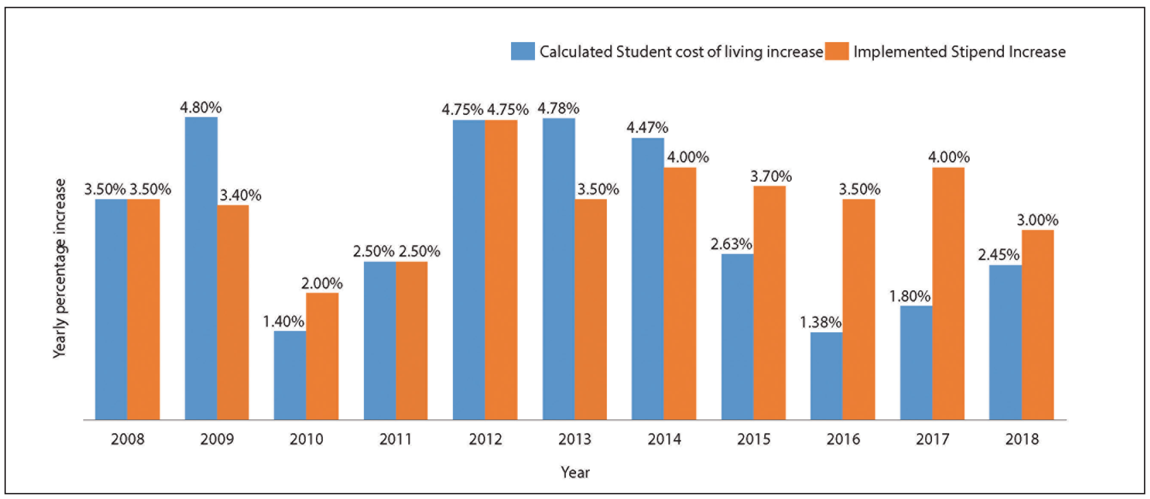
The Tech
Established 1881

WEATHER, p. 2
THU: 86°F | 65°F
Isolated T-Storms
FRI: 82°F | 54°F
Isolated T-Storms
SAT: 75°F | 62°F
Mostly Sunny

Volume 138, Number 12

Thursday, May 03, 2018



MAHI SHAFIULLAH—THE TECH

Comparison of graduate student living cost increase with stipend increase over the past decade.

Computational thinking GIR presented at faculty meeting

Comp. GIR would have two six-unit parts and could require changes in freshman credit limit or GIR system

By Jocasta Manasseh-Lewis
STAFF REPORTER

During the March 21 faculty meeting, the Working Group on Algorithmic Reasoning and Computational Thinking presented their recommendations for a computational thinking General Institute Requirement (GIR).

The working group, which was created in April 2016, is chaired by Chancellor for Academic Advancement Eric Grimson and organized by Dean of Digital Learning and former Chair of the Faculty Krishna Rajagopal and Dean of Undergraduate Education Dennis Freeman.

The group's recommendations are based on their March 2017 report, *A Computational Thinking Requirement for MIT Undergraduates*.

The working group has met with faculty from every department, as well as engaged with the Committee on the Undergraduate Program (CUP), Faculty Policy Committee (FPC), and the Academic Advisory

GIR, Page 2

Mass. legislature considers bills on sexual misconduct

Title IX coordinator: MIT supports bills but has some reservations

By Jessica Shi
NEWS EDITOR

Two bills pertaining to campus sexual assault, S.2203 and H.4159, are currently before the Massachusetts state legislature. MIT administrators, the Undergraduate Association, and the Graduate Student Council have expressed their support for these bills, with a few reservations.

S.2203, entitled An Act relative to sexual violence on higher education campuses, was introduced in the Massachusetts Senate last November, which approved and passed the bill to the House Ways and Means Committee, where it is still under consideration.

This bill requires all post-secondary degree-granting institutions in Massachusetts to "adopt a policy on dating violence, domestic violence, sexual assault and stalking."

The policy, which must be publicly accessible online, is required to include detailed information on the school's reporting and grievance procedures, as well as descriptions of what emergency assistance, counseling, and other support resources are available to students and employees.

The GSC "strongly support[s]" this bill, according to a statement emailed to The Tech, as its passage would "contribute to a decrease in sexual violence on college campuses" and "result in a safer graduate student experience."

Sarah Rankin, MIT's Title IX coordinator, said in an interview with The Tech Friday that the bill builds on MIT's work in developing a response to sexual misconduct and other forms of gender discrimination over the past several years. "I think it's really positive to see that much of that will be codified in state law," Rankin added.

However, there are areas of the bills — aspects that unintentionally create problems for MIT and other

Bills, Page 2

Grad stipend recommendation to increase by 3 percent in response to increasing living costs

The Office of the Vice Chancellor announced a 3 percent increase in graduate student stipends for 2018-2019. The decision is partially based on Graduate Stipend Committee presentations on Feb. 27 and March 12 which included a 2.45 percent increase in cost of living, according to Nicholas Triantafillou G, chair of GRC Housing and Community Affairs Committee, in an interview with *The Tech*.

The focus on support by the committee this year diverged from previous years, which focused more on stipends to attract graduate students, according to Triantafillou. He said that the committee and the administration discussed methods to ensure that all graduate students can live off of their stipends. Specific groups discussed were those who only receive 9-month stipends, those who only receive half stipends, and graduate students with children. Of graduate students with children who took the 2017 Graduate Student Life Survey, 50 percent said that their income was not sufficient to cover household expenses (compared to 22 percent of graduate students without kids who had the same response).

To arrive at 2.45 percent, the committee used the consumer price index data for Cambridge along with housing cost estimates from a rental marketplace website to estimate cost of living increases for various categories, like food, transportation, and housing. They used survey results for graduate student expenses to estimate the fraction of expenses in these categories, and combined the two datasets to arrive at 2.45 percent. The committee did not factor more local effects, such as the closing of Star Market, into the analysis.

Historical data from the Graduate Stipend Committee shows that in the past ten years, stipends have seemed to track or surpass cost of living estimates made by the Graduate Stipend Committee. However, the amount declared by the Office of the Provost is just a guideline for departments within the School of Science and School of Engineering, which can pay 15 percent above or 10 percent below the recommended amount. Heather Konar, Communications Officer at the OGE, said that "other schools are expected to be consistent with these rates."

— Mark Goldman

VIVIAN HU—THE TECH

Alpha Phi's annual philanthropic event, Heartthrob, was this past Saturday. The proceeds of the event were donated to a charity supporting women's cardiac health.

IN SHORT

Pre-registration for summer and fall 2018 opened May 1. The deadline to make fall CI-H/HW selections is June 18 at 5 p.m**.**

The deadline to drop half-term subjects offered in second half of term is today.

The Tech Shuttle will begin a new morning route (6:15 a.m.–2:30 p.m. Monday–Friday) starting May 7, incorporating the changes made along Wadsworth Street for the Kendall Square project. Real-time schedule information can be found at *m.mit.edu.*

Undergrads can apply to serve on Institute Committees by filling out the form sent to *undergrads@mit.edu* by Saturday at midnight.

***The Tech* is looking** for opinion, sports, and features writers. Write to *join@tech.mit.edu* to get started.

Send news and tips to *news@tech.mit.edu.*

MUSICAL LOVE LETTERS

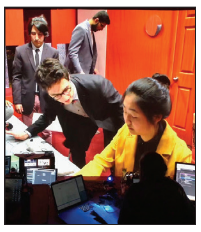
An endearing look at everyone's favorite topic: romance. **ARTS, p. 4**

A FLOATING MYLAR BEAST

Arts and science come together for the environment. **SCIENCE, p. 11**

STUDENT SPOTLIGHT

Highlighting the 2017 president of the MSA. **CAMPUS LIFE, p. 10**



IS THIS REAL LIFE?

Simulations upon simulations upon simulations. **ARTS, p. 4**

WHAT TIME IS IT?

This semester is almost over. Here's how we know. **CAMPUS LIFE, p. 10**

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The Tech (ISSN 0148-9607) is published on Thursdays during the academic year (except during MIT vacations) and monthly during the summer by The Tech, Room W20-483, 84 Massachusetts Avenue, Cambridge, Mass. 02139. Subscriptions are $50.00 per year (third class). **POSTMASTER:** Please send all address changes to our mailing address: The Tech, P.O. Box 397029, Cambridge, Mass. 02139-7029. **TELEPHONE:** Editorial: (617) 253-1541. Business: (617) 258-8324. Facsimile: (617) 258-8226. *Advertising, subscription, and typesetting rates available.* Entire contents © ***2018 The Tech****. Printed by Turley Publications, Inc.*

EECS professor: pros and cons of computational GIR yet to be understood

GIR, from Page 1

Council of the Undergraduate Association.

The proposal is to create a "six-plus-six" unit computational thinking module. The first six-unit class would provide an introduction to computational thinking, similar to Introduction to Computer Science and Programming in Python (6.0001). The second six-unit class would be a department-specific follow-on, which-can be "satisfied in a number of different ways, provided by or coupled to each student's major," said EECS Professor Duane Boning in an interview with *The Tech*.

A subcommittee would be charged with setting the educational goal for the six-plus-six subjects and what subjects would count towards the GIR. According to Boning, "CUP has not delved deeply yet into what computational thinking means, but we think that it includes modes of thinking that convey ways of structuring a problem and describing what the steps are to solve it."

Boning also mentioned that the pros and cons of adding a computational GIR still need to be understood. "When do students need to take this requirement? There are already challenges with taking 6.0001 in the first year and the interaction with the first year credit limit is still being figured out," he said.

With the current credit limit, students taking an advising seminar or participating in a UROP for credit, for example, might not be able to complete the requirement. Also, freshmen are typically discouraged from taking five classes (instead of four) in a semester. The working group has been attempting to find a way to work around the credit limit in order to make the computational GIR more accessible.

According to the slides presented by the working group at the faculty meeting, the three options for adjusting the existing degree requirements to accommodate a new GIR are: to not create the computational GIR, reduce the REST (Restricted Electives in Science and Technology) requirement from two subjects to one and replace it with the computational GIR, or to only require students to complete only six of the potential seven science GIRs.

However, this would mean that departments would not be able to assume that students have completed the Science Core as a prerequisite for later subjects.

In addition, the GIR would have to take into account the already high numbers of students enrolled in course 6 classes. 91 percent of the 2016–2017 graduating class completed some form of a computational subject, according to the slides presented during the faculty meeting, and there were over 750 students taking higher-level programming classes such as Fundamentals of Programming (6.009) and Introduction to Machine Learning (6.036). This raises questions about how the computational GIR might differ from the Introduction to Computer Science and Programming in Python (6.0001/6.0002), and how it will affect students' course loads.

According the slides presented at the meeting, the only majors that would exceed the 198 units of credit specified in the rules and regulations of the faculty are Chemical Engineering (Course 10), Chemical-Biological Engineering (Course 10-B) and Engineering as Recommended by the Department of Chemical Engineering (Course 10-ENG).

Some voiced concerns about how a new GIR, especially one with an aspect determined by the major, could affect major exploration.

"My only concern is with the second 6-credit course — the student (assumingly a freshman) [would] have to decide what field in computer science they would want to pursue," Stuti Vishwabhan '20 said in an email to *The Tech,* "[and] that may be difficult at such an early time in college."

"I think that there is a cultural thing of a lot of freshmen taking the same classes their freshman year. It's kind of neat that I know that just about everyone in this class (18.02) is taking 8.02 and if half of them weren't taking it this year, it would be harder to tie things together," Mathematics Professor Lawrence Guth commented in an interview with *The Tech*.

Sexual violence bills could increase MIT employee responsibility to provide support

Bills, from Page 1

institutions — that she would like to see revised, Rankin continued.

The section with the largest potential impact on MIT, according to Rankin, pertains to "responsible employees."

Presently, most MIT employees — including faculty, residential staff, TAs, and coaches — fall in this category, which means that if they learn of potential cases of student sexual misconduct, they are required to report these to the Title IX Coordinator. (By contrast, employees who are "confidential resources," such as Mental Health and Counseling, have no reporting obligations.)

Under MIT's current system, after responsible employees inform Title IX of the incident, Title IX will then follow up with the student to offer assistance and options for next steps.

The bill, as of the most recent version Rankin has seen, would instead require that the employee themselves provide much of this information to the student.

Given that MIT has "upwards of five to ten thousand" responsible employees, "our ability to train every single person to remember all the information that they have to provide would be really challenging," Rankin said. This shift in expectations might thus limit the number of employees MIT is able to maintain in the "responsible" category, which could have negative consequences.

Many of the other provisions in the bill will not affect MIT because they are already in alignment with MIT's current policy, Rankin said.

For example, the bill will require that schools use a "preponderance of evidence" standard (which essentially means "more likely than not," Rankin explained) to determine whether a student is responsible for violating its sexual misconduct policies. MIT has always used this standard, Rankin said.

The "preponderance" standard is less stringent than the "clear and convincing" criteria that the U.S. Department of Education, in a reversal of previous guidelines, currently permits schools to use.

Indeed, S.2203 can be interpreted as an attempt to maintain Obama-era campus sexual assault regulations and protections at the state level in light of shifts in federal policy under Secretary of Education Betsy DeVos, who has sought to expand the rights of accused students.

As for how this might affect MIT's ability to know whether to comply with state or federal law in situations where they conflict, Rankin said there are no "blanket rules"; rather, they will need to rely on legal analysis for specific circumstances.

Overall, the UA and the GSC "agree with the concerns raised by the MIT Title IX Office, and we shared these concerns with the organizers at Every Voice and legislatures we met with," UA President Sarah Melvin '18 wrote in an email to The Tech.

Every Voice is a liberal coalition that organized a rally in support of the bills April 10; approximately 15 MIT students were in attendance, according to Melvin.

H.4159, entitled Resolve creating a task force on sexual misconduct climate surveys for colleges and universities in Massachusetts, was introduced in the Joint Committee on Higher Education in January.

The aim of these surveys is "to determine the prevalence and perception of sexual misconduct among community members of colleges and universities in the commonwealth," according to the text of the bill.

On this front, MIT conducted a Community Attitudes on Sexual Assault (CASA) survey in 2014 to gather information on students' opinions and experiences with regard to different types of social behavior and sexual situations, including those that were nonconsensual. MIT plans to administer this survey again in the next academic year, according to Rankin.

"Our survey was very, very comprehensive, and we were one of the first schools to do a massive climate survey in 2014 and then make the data public," Rankin said. As a result, MIT would probably be involved in the process of making a standardized survey for Massachusetts institutions, if that is what the bill ultimately requires.

Melvin wrote that the UA supports this bill, as the CASA survey data has been "very helpful in guiding discussions around policy and prevention programing at MIT."

The GSC also supports the bill, according to its statement.

However, the GSC is also urging the addition of two amendments that it believes would improve the survey's effectiveness: first, to provide "a specification of periodicity," such as by requiring that the survey be issued at least every three years, and second, to have each school report its results to the Committee on Higher Education in the interest of accountability.

A previous version of the bill (H.2998) required an annual survey, which Rankin said would have posed difficulties, given the lengthiness and sensitive nature of the CASA questions.

MIT has been working with legislators, the Association of Independent Colleges and Universities in Massachusetts (AICUM), and other universities on both of these bills, according to Sarah Gallop, co-director of the Office of Community and Government Relations.

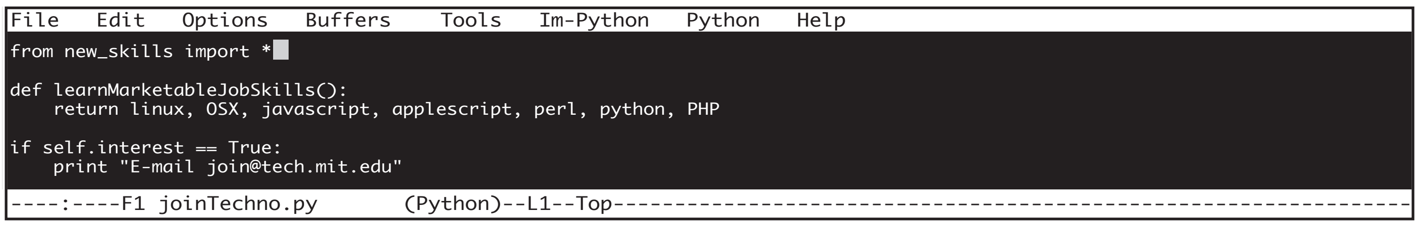
"There are a limited number of legislators who actually have colleges and universities in their districts, so it's important for MIT and others to take the time to share experiential and practical feedback so that all lawmakers can understand the nuances of any proposed legislation," Gallop wrote in an email to The Tech.

Rankin explained, "We've been working on the bills, and we're in general very supportive of … the big picture and spirit of them. We are hopeful that there are little adjustments that can be made that we are working with AICUM, and AICUM is working with others [on]."

CORRECTIONS

An article in last week's issue misstated the name of the new major combining Courses 6 and 11. The major's title is Urban Science and Planning with Computer Science, not Computer and Urban Science, which was an older version of the name.

Furthermore, the editors want to clarify that the motion to establish the new major was introduced and not passed at the April 18 faculty meeting, as this may have been unclear. The motion will be voted on in the May faculty meeting.



```
from new_skills import *

def learnMarketableJobSkills():
    return linux, OSX, javascript, applescript, perl, python, PHP

if self.interest == True:
    print "E-mail join@tech.mit.edu"
----:----F1 joinTechno.py       (Python)--L1--Top--------------------------------------------------
```

WEATHER

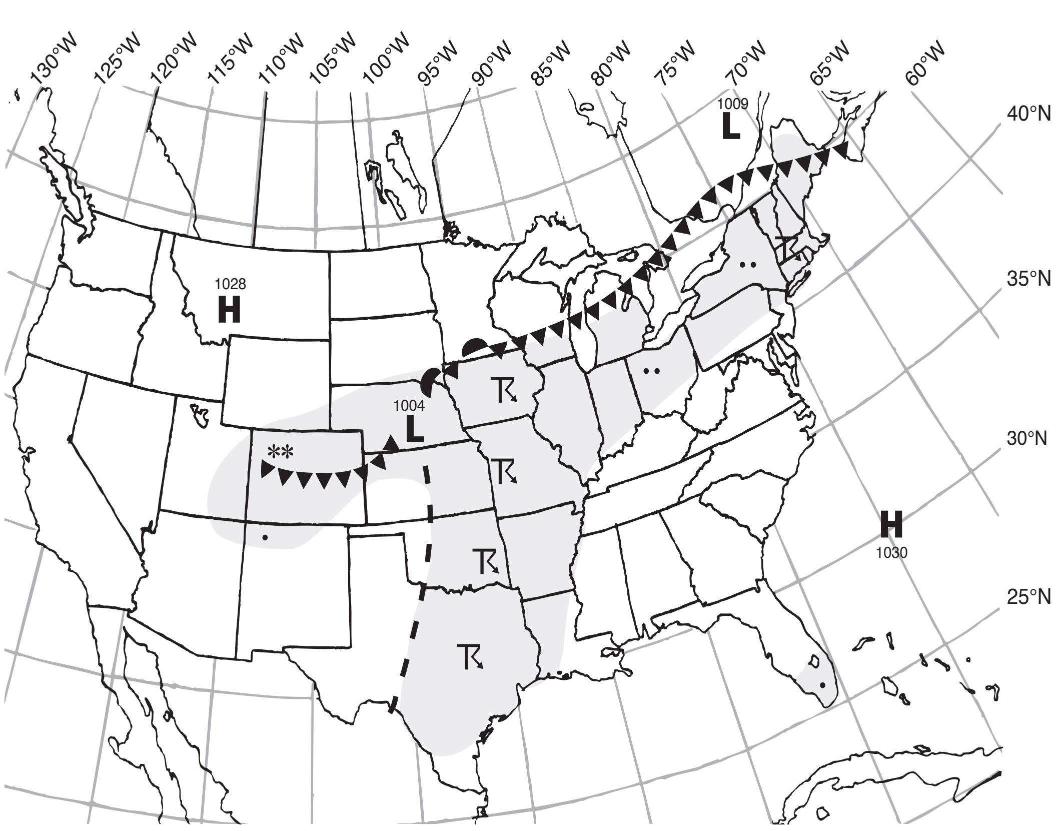
Summerlike weather for New England

By Jordan Benjamin
STAFF METEOROLOGIST

As May begins, warm weather is taking over in a big way in the Northeast. Yesterday featured near-record high temperatures around 90 °F (about 32 °C) in much of the region. Today features similar weather, as high pressure to our south continues to pump warm and increasingly humid continental air from the Southeast and Great Plains into the Ohio Valley and New England. The increased humidity and high temperatures will allow for the possibility of isolated to scattered thunderstorms today and tomorrow, some of which could include gusty winds. Temperatures will moderate somewhat Sunday into the first part of next week, with high temperatures in the 60s and 70s °F (around 20 °C). A low pressure system sliding up the East Coast Sunday and Monday could bring light showers to the region, but no significant weather impacts are expected. Elsewhere across the country, warm humid conditions have brought several rounds of severe weather to the south-central Plains, where hail and numerous tornadoes have been reported. The severe weather threat will diminish greatly after today. Further west, a late season snowfall in Colorado could slow the rapid decline of the Rockies snowpack; locally, warmth should melt the the past several days' snowfall in the White Mountains.

Extended Forecast

Today: Partly Cloudy. Isolated thunderstorms possible in the afternoon. High around 86 °F (30 °C). Winds WSW at 10–15 mph.
Tonight: Partly Cloudy. Low around 65 °F (18 °C). Winds WSW at 5-10 mph.
Tomorrow: Partly Cloudy. Isolated thunderstorms possible in the afternoon. High around 82 °F (30 °C). Low around 54 °F (12 °C). Winds WSW at 10–15 mph.
Saturday: Mostly Sunny. High around 75 °F (24 °C). Low around 62 °F (17 °C).
Sunday: A chance of showers. High around 66 °F (19 °C).



Situation for Noon Eastern Time, Thursday, May 3, 2018

Weather Systems	
H	High Pressure
L	Low Pressure
§	Hurricane

Weather Fronts	
– – –	Trough
◠◠◠◠	Warm Front
▲▲▲▲▲	Cold Front
▲◡▲◡	Stationary Front

Precipitation Symbols	Snow	Rain
Showers	*▽	•▽
Light	*	•
Moderate	**	••
Heavy	***	•••

Other Symbols	
≡	Fog
⚡	Thunderstorm
∞	Haze

Compiled by MIT Meteorology Staff and *The Tech*

Class of 2021 declares majors, 6-3 remains most popular

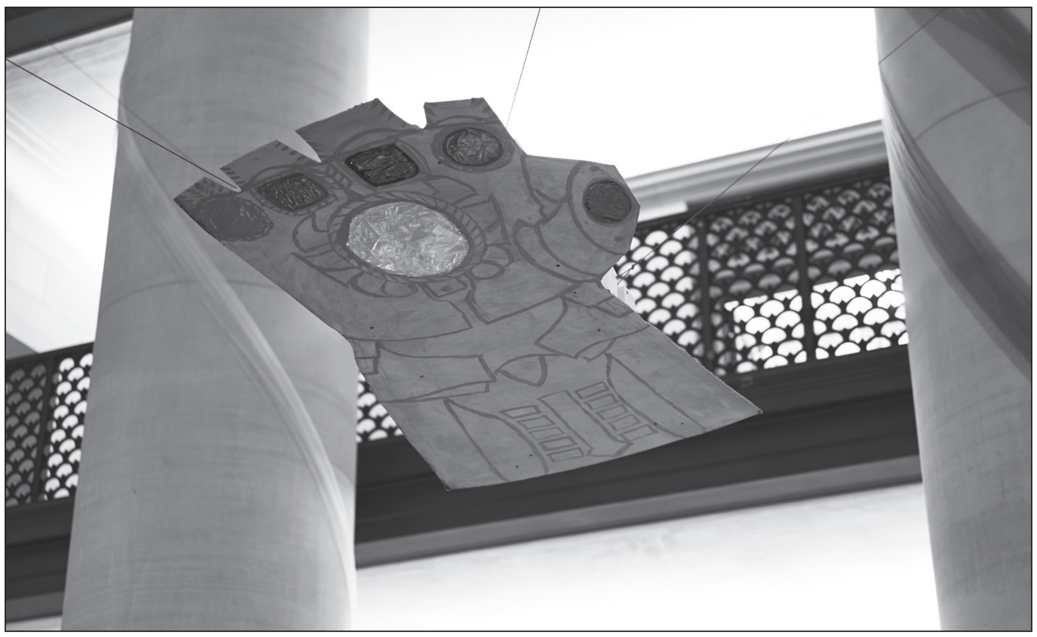
Course 6-3 continues to lead as the most popular major, despite a 4.1 percent drop in enrollment as compared to the class of 2020, according to data from the Registrar's Office. While enrollment in the School of Engineering experienced negligible change compared to last year, Course 6-14 (Computer Science, Economics, and Data Science), a new major introduced last fall, garnered a total of 3.3 percent of the freshman class. Courses 1, 2, 6-1, and 16 also saw the most significant increases in enrollment among the courses in the School of Engineering.

The proportion of students who declared majors in the School of Science has similarly stayed relatively constant compared to last year. Course 18 also experienced one of the most significant increases among majors in the School of Science, with a 0.6 percent increase in enrollment. Notably, Course 5 and Course 7 experienced drops in enrollment of 1 percent and 0.8 percent, respectively, while Course 5-7 saw a 0.7 percent increase in enrollment.

Despite new dual offerings of 14-1 (Economics) and 14-2 (Mathematical Economics) as of fall 2016, Course 14 saw an overall drop in enrollment of 0.3 percent. Other courses in the School of Humanities, Arts, and Social Sciences generally experienced a net change of one or two students. However, despite having 4 students in the class of 2020, the Comparative Media Studies major currently has zero enrollment.

Overall, 68.6 percent of the freshmen are enrolled in the School of Engineering, 20.7 percent in the School of Science, 1.5 percent in the School of Humanities, Arts, and Social Sciences, 1.5 percent in the School of Architecture, and 2 percent in the School of Management. Currently, 63 freshmen remain undesignated or undecided.

— Sandhya Kalavacherla



LEON YIM

An Infinity Gauntlet appeared in Lobby 7 over opening weekend of Marvel's *Avengers: Infinity War* as part of a hack.

101 THINGS TO DO
BEFORE YOU GRADUATE

32. Take a stroll through Little Italy in the North End

Join the Arts department at *The Tech* and write restaurant reviews.

(And get reimbursed for your meal!)

We get you the tickets.
You get us the review.

ARTS at The Tech Established 1881

events • movies • theater • concerts
music • books • restaurants • interviews

join@the-tech.mit.edu

THEATER REVIEW

Are we real or simply made of code?

World of Wires makes us question the credibility of our reality

JAY SCHEIB

Hunter (Hunter Richardson '19), Professor Li (Andres Galindo '18), Naz (Samarth Mohan G), Mr. Kitt (Max Fishelson '20), and Cynthia (Adelynn Paik '21) are featured in the opening scene of *World of Wires.*

World of Wires

Directed by Jay Scheib and Emily Ranii

Written by Jay Scheib

Theater at W97

April 25–May 5

By Nathan Liang and Torri Yearwood

EDITORS

It's not hard to imagine that in this world of constant progress, we will soon be able to simulate our own history, which raises the question: how do we know we aren't already in one? How are you sure that your life is not just being watched by some post-human civilization?

Much like a simulation, we see the actors' world through the confined eye of a camera roving the set. Projecting onto a white, half-sheet half-block wall, it follows the actions of the cast and gives us glimpses of each character's motivations.

Just moments into the play, the brilliant, but crazed, Doctor Li (Andres Galindo '18) stumbles across the stage, setting the tone of confusion and existentialism that would permeate the rest of the play. Frantically searching for a mirror, Doctor Li sets in motion the first of several mind-bending reveals: while reaching for the mirror, he knocks a block out from the wall — one of the same blocks from the wall that the play is projected on — and into the audience, allowing our first glimpse into the set proper, a fact that the characters begin to notice.

Then, the impossible happens.

Mayer (Andrei Cretu G), bodyguard to Head of State Metro Goldwyn (Brandon Sanchez '18), unintentionally collapses the fourth wall, causing the beginning of the absurdism of the play. At the same time, Doctor Li goes on a paranoid rant about being in the very kind of simulation that he was hired to create — much as actors on a stage, for example.

In a whirlwind of scene changes, the audience is guided through a path of confusion and a series of nested simulations, to the point where our protagonist, Hunter Stopper (Hunter Richardson '19), realizes that her reality, the one that we started in, is a simulation itself. Having realized this, this sets a sporadic witch hunt onto her as the other characters seek to drown her revelation to maintain the sanctity of the simulation.

In the chaos of existential crises and nihilist themes, the occasional absurdity provides a welcome reprise. Or take an abrupt interlude, for example, when two of the characters are set free into the audience to live their greatest superstar dreams.

Plot points aside, another thing of note is how each character is so distinct and well-performed. You realize Hunter's motivations and the obstacles the other characters pose. Paige Turner Monroe (Lily Zhang G) is the seductive secretary, constantly distracting the others away from their original goals. Mr. Kitt (Max Fishelson '20) has an ulterior motive that isn't fully realized until he gives a long winded speech that matches the energy of an auctioneer. And when one of the characters in the simulation freaks out, you're reminded of those unfortunate video game NPCs that spaz out once something in their code glitches.

Then there's the question of existentialism that arises as a result of the play's themes. How do we know when they've finally escaped the world of simulations? Are all the characters representative of a real counterpart, or are they all simply figments of preprogrammed static? Should we be wary of the brevity of our own existence and whether or not our own lives are merely projections of a source code?

If it isn't already clear, this show is not for the faint of heart. Above the soft piano rendition of *Le sacre du printemps* and cleverly partitioned sets, there are a multitude of loud noises, falling objects, and strobe lights.

It has to be said, this is an excellent play. The rational absurdity, level-headed confusion, and obfuscated clarity were magnificently presented and demanding of a second (or third) viewing. With non-linear storytelling to rival *Momento* and layers beyond *Inception*, this is an interesting next-level take on the mind-bending absurdist genre.

THEATER REVIEW

Dear Friend,

A musical that is written with love, sealed with a kiss, and performed with a lot of heart

She Loves Me

Book by Joe Masteroff

Music by Jerry Bock

Lyrics by Sheldon Harnick

Directed by Dheekshita Kumar '20

Kresge Little Theater

May 3–4, 8 p.m. and May 5, 2 p.m.

By Johnson Huynh

ASSOCIATE ARTS EDITOR

How do you fall in love? Do you follow someone around relentlessly, hoping that one day they might turn around to notice you? Or perhaps you enter a relationship out of convenience, the best available lover, so to speak. *She Loves Me*, put on by our very own Musical Theater Guild, hopes to answer the question the only way it knows how: singing. This spring show is a very lovely testament to the way that we fall in love with another person. Complete with spectacular dance choreography, stellar performances by the cast, and a heart-warming story to boot, *She Loves Me* is another win for MTG.

It all started with a letter. The year is 1934. The place is a perfumery in Budapest. It's a beautiful summer's day as a group of people shuffle into work. Spending their time selling products to their customers are: Ilona Ritter (Carrie Fowle '18), who is having an affair with Steven Kodaly (Geoff Hegg '17); Arpad Laszlo (Piper Sigrest '18), the store's delivery boy; Ladislav Sipos (Kim Dauber '18), a well-meaning employee trying her best to support her wife and kids; and Georg Nowak (David Favela '18), the assistant store manager. In "Sounds While Selling," we get to peer into their lives while they persuade customers into buying their products. We learn that Georg has been writing romantic letters to a mysterious "Dear Friend" for a while now when he shows them to Ladislav, his longtime friend.

Completely in the dark as to the identity of "Dear Friend," Georg keeps sending his love letters into the ether with the hopes of one day finding her. I was really impressed with the choice of Georg for this production. Favela possesses a frenetic, endearing energy that fits the role well. After seeing him in *Avenue Q* for MTG's fall production, it appears to me that Favela can pull off frantic characters. It adds a quirkiness to his character that is amazing to see inhabit the stage.

The moment of reprieve doesn't last for long because Amalia Balash (Elisa Boles) makes her way into the store to ask for a job from the store manager, Mr. Maraczek (Paul Gallagher G). After successfully conning a woman into buying a musical cigarette box, she secures her position in the store. Not everyone is fond of this new woman. Her strongest opponent is Georg. From the moment they lock eyes, they become instant enemies. Boles and Favela's chemistry is one of the highlights of the production as they trade quips.

What the two of them don't know is that they are each other's "Dear Friend." Deep down, they hope that they'll find their true love one day. Nevertheless, they go about their days writing to their pen pal. Dreaming of another life isn't exclusive to the main pair, though. Illona's relationship with Steven is going down the drain. Arpad dreams of one day working at the store. Even Mr. Mareczek misses the affection of his wife, who is having an affair.

Yet these characters continue making the loose ends of their lives work. Seeing the Guild's chemistry with each other onstage has been one of the more heartwarming aspects. The actors' ability to keep the pace of the plot steaming ahead between musical numbers is a testament to how they can breathe life into this production. Like the romantic comedies of the 1930s, *She Loves Me* succeeds in maintaining the momentum of the plot all through the first act

On the other hand, the second act is not very gripping plot-wise. It's not so much a problem on the cast's part, as they do a good job belting their hearts in the remaining songs, as it is the faults of the narrative. Nevertheless, the production continues to impress and surprise the audience. Staying true to the spirit of 1930s romantic comedies, *She Loves Me* is infused with dance pieces that speak to the zaniness of the time. Whether it be the sensual dance routine in a romantic café or the fast pace of "Twelve Days of Christmas," the dance numbers manage to keep the energy of the show up.

IRENA MARTINEZ

Georg Nowack (David Favela '18) embraces Amalia Balash (Elisa Boles '18) in MIT MTG's *She Loves Me.*

In the end, Georg reveals his identity to Amalia. Rather than turn away from him, Amalia shows him a quick smile before they embrace each other with a kiss. Just like that, the musical ended and Amalia's smile appeared on my face as well. This is how people fall in love. That is how you show that the universe conspires so that two people with no chance of ever meeting can hold each other in their arms near the glowing light of the Christmas tree.

DOCUMENTARY REVIEW

The unexpected rockstar

Ruth Bader Ginsburg's rise to notoriety

COURTESY OF MAGNOLIA PICTURES

Jimmy Carter and Justice Ginsburg shaking hands, c. 1980 in *RBG*, a Magnolia Pictures release.

RBG

Directed by Betsy West and Julie Cohen

Rated PG

Opening May 4

By Johnson Huynh

ASSOCIATE ARTS EDITOR

"Who are you supposed to be?" It's Halloween, and I'm standing in front of my friend as the last light of day creeps in through the window blinds. She's wearing a black robe that hangs loosely from her shoulders, too small to really fit into them. A delicate, white collar adorns her neck. "Obviously, I'm Ruth Bader Ginsburg!" she beams. Grinning cheek to cheek, my friend strikes a pose. I raise an eyebrow in confusion. "Who?"

From the back of my mind, this memory floated into clear view. It is a pearl of remembrance, and I cradled it in my hands. Gradually, the lights in the movie theater dimmed. A light piano music started playing, airy yet nostalgic. Then, a figure showed up on the movie screen: Supreme Court Justice, Ruth Bader Ginsburg. This is her story. This is how she rose to notoriety.

The documentary starts off very sweetly, with Ginsburg's childhood. Possessing a sort of "quiet magnetism," as one of her friends described it, Ginsburg was taught by her mother to be both an independent woman and a lady. She took these lessons with her as the years passed. In an instant, we are shuttled from Ginsburg's childhood into her years at Cornell. It is there that we meet Marty, her future husband.

They were "total opposites," describes Professor Arthur Miller. Where Ginsburg was quiet and reserved, Marty was sociable and zany. Their relationship seemed improbable, possibly even surreal. And yet, they become lovebirds for one reason: he cared that she had a brain. A cut back to present day — Ginsburg reveals a tiny smile sneak its way onto her face as she talks about him.

It was here that I began to see what my friend saw so many years ago. Behind the iconography of Ruth Bader Ginsburg is a woman with a storied past. She had to undergo several obstacles to get where she is now. Filmmakers Cohen and West do their absolute best to highlight the incredible work that she's done. They introduce us into the beginning of her law career, fulfilling her idea "that you could do something to make your society better."

A female litigator in a world predominantly run by men, Ginsburg had to work especially hard to earn a name for herself. No one would bat an eye at her, until she made it into the Harvard Law Review that is. Now suddenly, she's the talk of the town. Although, this is nowhere close to what she could ever imagine achieving.

The year is 1973. Sharron Frontiero recalls how a woman stood in front of the Supreme Court and fought for her. Overwhelmed with the pressure that lay before her, Ginsburg has to make a case for her client against one of the highest powers of the land. But never once do they look away from her argument, as one friend suggested: they "were just glued to her." She wins that case. She also wins the next one. Five out of the six cases that she brings to the Supreme Court are claimed by her.

Her successes pile on. As President Carter takes the office, a stronger effort is made to put more women in the judicial system. Ginsburg is swept along in this transformation. Eventually in 1993, she was nominated to be a Supreme Justice. Swelled with the excitement of her ascent to power, the music becomes inspirational. I was eagerly waiting to see what she would do next. This is a woman who had fought her way to the top. This is the figure that we know today as Justice Ginsburg.

But, that's not all she is. The film draws a line between Ginsburg, the embodiment of justice, and Ginsburg, the woman. Here is a person who cracks up when she sees Kate McKinnon play her on SNL. Here is a woman who gets choked up when she reads her husband's last letter to her.

Here's an icon for whom young girls all over the nation can admire. Despite everything, she is notorious for what she has fought for: women's rights, equality, and justice. Something does exist behind the icon that young people crafted for her, and it is bright and pure. So much so, that it can even make a young girl in Southern California glow as she says her name.

MOVIE REVIEW

How hard is saving the world?

Pretty hard, as it turns out: Marvel outdoes itself in *Avengers: Infinity War*

COURTESY OF WALT DISNEY PICTURES

Part of the Avengers prepare for battle in Wakanda in Marvel's newest movie, *Avengers: Infinity War.*

★★★★★

Avengers: Infinity War

Directed by Anthony Russo, Joe Russo

Starring Robert Downey Jr., Chris Hemsworth, Mark Ruffalo, Chris Evans, Scarlett Johansson

Screenplay by Christopher Markus, Stephen McFeely

Based on the Marvel comics by Stan Lee and Jack Kirby

Rated PG-13

By Mahi Shafiullah

STAFF WRITER

Infinity War isn't a movie like the other movies you might watch at a theater — it is the culmination of the past 10 years' worth of work by Marvel Studios. This is a superhero movie that breaks all expectations while abiding by every formula of making a good movie. With the intense feeling that kept me glued to the seats for a while even after the movie was over, I could tell that this movie might change the landscape of comic-book inspired movies as we know it.

Infinity War does the best job of framing the audience expectation that I have seen in recent times: the movie opens with the Marvel flip-page animation and a pressing silence, only to be broken by a distress signal. Within the first five minutes, the tone of the movie makes itself known, and from there it's an emotional journey you cannot imagine getting away from.

This movie is the most intense of any Marvel movies of recent times, so much so that some even call it a "stimulation overload." The occasional jokes still mark their appearance with the brief moment of respite, but that happens in between the parts where the Russo brothers are busy dragging out raw emotions of hope, despair, anger, or surprise from you.

Initially, there was a lot of fear about the story — how could Marvel ever fit the star-studded crew from 10 years and 18 previous movies in a movie of a reasonable length? Russo brothers handled that dilemma by splitting the story in three major storylines that converge into two. The separate stories work quite well to distribute the screen time between faces that all require focus. Unfortunately, this novel structure sometimes leaves the audience feeling like they are watching a prolonged episode in a TV show, with occasional "Did these two characters even meet this movie?" but I cannot think of a better structure it could have used.

Another point where *Infinity War* must be applauded is the main antagonist, Thanos. Even with so many characters reprising their roles, the Russo brothers did an incredible job of introducing a new character and giving him the somewhat appropriate death a mega-villain of his magnitude required. Thanos, the "mad titan," is mad, of course, but even then his character shows more emotions and tries justifying his actions more than most supervillains on the silver screen. Even with a full-CGI costume, Josh Brolin plays his part quite splendidly, and the director and the scriptwriters share the honor of creating the second most convincing antagonist, right after Killmonger from Black Panther.

This weekend, or the next, find a three hour window and go watch *Avengers: Infinity War* (possibly only if you're acquainted with the universe enough). It's rare for something that's as impersonal as a movie to have such a large impact, but *Infinity War* does it better than any recent movie out there.

DOCUMENTARY REVIEW

Parties and politics

A Greek tragedy in the truest sense of the word, this documentary provides an intimate look at the bacchanalia that is frat life

Alpha Class

Directed by Danny McManus

Co-produced by Danny McManus and Joseph Forte

Released March 9

By Johnson Huynh
ASSOCIATE ARTS EDITOR

There is an emblematic scene in the documentary that encapsulates the height of frat life and ultimately the tone of the film. An immense sea of brothers is dancing the night away in the courtyard of an apartment complex. Red Solo cups are carelessly strewn about. Some of the brothers make out with pretty girls as the camera zooms in to capture the action. The air is rife with the sound of carousing, which becomes deafening as the night goes on. This would be the perfect depiction of the Greek Bacchanalia minus the togas.

When you think of frats nowadays, you think of parties. You think of men in muscle tanks doing keg stands as a group of their buddies cheer them on. While *Alpha Class* does show these scenes quite often, it's not the the focus of the movie. Instead, filmmaker McManus focused on the aspect of frat life that is often overlooked: the enthusiasm of joining a community.

Of course, the film never shies away from the grimy parts of frat life either. Hazing, the process in which pledges prove their worth to the fraternity, is extensively looked at in the beginning of the film. Brothers Forte, Jamie, and Bobby describe their hazing experiences for Phi Kappa Psi. No time to spare, the pledges are shuttled into harsh militaristic drills by the Vice President of Pledges. "Balling," they called it, or weeding out the weak, was at the center of it all. The trials that the upperclassmen put their pledges through were horrific, dehumanizing. However, a brother comments, "It's fucked up, but it's tradition." In order for the pledges to "know their place," they are subjected to acts that border on sadism.

All the while, the brothers interviewed for this portion never flinched from telling the truth. They told their horror stories with the lightness of a comedy routine. Undeniably frat-centric in its documentation, *Alpha Class* wants to show that a true sense of brotherhood is established at the end of grueling initiation. Unfortunately, Phi Psi wouldn't last long afterwards. Hit with allegations of hazing, the chapter's charter was revoked.

The next part of the film is a little bit cringey at points. Forte and other brothers decide to start a colony, a group of brothers that could become a new frat. Reminiscent of cheesy college movies, *Alpha Class* describes the journey to become the fraternity Phi Sigma Kappa. I had the impression that it was supposed to be inspirational, but the film fell flat. The scenes often felt disjointed, made even more apparent by the awkward choice of background music. Even more frustrating were the moments of aggressive male chauvinism depicted in the scenes, which made me tense up.

The film as a whole lacked a momentum that could have made moments feel more bearable. Devolving into a tangle of anecdotes and cutaways, *Alpha Class* makes it hard to fall in love with or be interested in any of the people in the film. It couples this with plot points that just seem to drag on for far too long.

It eventually acquired an intrigue that made the story more interesting. Bouncing back from nothing, Phi Sigma Kappa gets to work throwing its parties once more. This time around, hazing would be a thing of the past. The brothers would have a new community, one revolving around aspects of leadership and unity. Antiquated ideas of wild partying still remain, though, and ultimately damages Phi Sigma Kappa's attempt to break away from tradition. In the Big Brother-Little Brother scene, we see the brothers in the zone. They dance, laugh, and call over strippers.

But Joseph Forte says it best: "You join Greek life, you're destined to fail." In time, even this new fraternity would have its charter revoked. Forte, Bobby, and other brothers would be hit with allegations that caused them to be placed on suspension. In this long chain of dominoes, even the frat house was demolished along with all the other frats on that street. Fifty years of culture and history are destroyed for retail space.

While this documentary didn't necessarily add anything new to my understanding of fraternities, it was an interesting glance into how the brothers viewed their world. It shows the viewers that fraternities aren't always about the parties, but the politics as well. And that there are always more things than just the hazing horror stories that populate the news. Filled with parties, booze and girls, this is truly a brave new world.

CONCERT REVIEW

Like spillover happiness from a forgotten dream

Gretchen Parlato and Mirella Costa charm the audience with their intimate performance

MAHI SHAFIULLAH—THE TECH

Jazz vocalist Gretchen Parlato performs at the Isabella Stewart Gardner Museum's RISE Concert series April 26.

★★★★☆

RISE Concert

Headliner: Gretchen Parlato

Opener: Mirella Costa

Isabella Gardner Stewart Museum

April 26

By Mahi Shafiullah and Sebastian Butler
STAFF WRITERS

The first feature of Calderwood hall at the Isabella Gardner museum that you will notice is that it's a perfect cube with a ground-level stage and seatings on four sides of almost all four stories. Such an unusual architecture manages to fit a decent number of people without losing the feeling of intimacy. The excellent sound crew reinforces this feeling by offering you a nearly acoustic experience.

On our tour to the hall for the RISE concert featuring Gretchen Parlato and Mirella Costa on the evening of April 26, this sense of intimacy was as strong as the joy from music alone. The sense fit perfectly for the opening act by the Brazilian singer Mirella Costa. Her joyful performance reminded us of a warm, crackling campfire on a summer night, or a hearth in an inn somewhere in South America. She was brilliantly accompanied by a jazz trio which played with taste, nuance, and humility, serving the songs by favoring interplay between musicians over flashy solos and fancy licks.

While her performance was great, the big name here was Gretchen Parlato: so big that even Costa let slip that she was thrilled at the idea of opening for her. As soon as she started playing, it was easy to understand why; Gretchen Parlato has incorporated the best elements of contemporary jazz and neo-soul and made them her own without getting submerged by them. Nowadays, jazz musicians know their Robert Glasper, and his odd time signatures and dreamy keyboard ambiances are found in the music of many a young jazz band — Berklee's Youtube channel is a testament to that — but throwing in complex time signatures and sudden rhythm changes doesn't always make for great music. Parlato manages to use all of these meaningfully in accessible song forms, while keeping complete control over her music and her band. She didn't hesitate to correct the band's tempo when they started the song too slowly. Thinking of herself as much as an instrumentalist as a vocalist, she used her hands as percussion and her voice as a melodic instruments, capable of blending in with the band or sticking out to drive the song. She treated us with beautiful, ethereal duos with James Francis on keyboards and Burniss Travis on the seven-string bass, and more driving songs where the audience was invited to sing along. And those were where you can really appreciate her mastery of her craft: she gets a sold-out room to sing along to complex jazz songs in odd meters with melodies so natural that people leave the room humming them.

Of course, it would be unfair to finish the review without talking about James Francis's jazz piano and keys. A key testament to his skill is how he shined even while performing with an artist like Parlato. But that would not suffice, simply because he is so much more. His music was enough to set the blood flowing, and his music flowed with our blood; it was music that you enjoy with your whole existence. Francis could excite us with his solos or remind us of the pure feelings of a sunrise. When necessary, he could also let others take front and center. That is Francis's power: his confidence and music flows freely no matter where he is.

On our way back from Isabella Gardner Museum, we found ourselves humming the melody from the last song. The final moments stayed with us long after the concert was over, like the spillover happiness from a beautiful dream that makes one happy for no apparent reason.

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CONCERT REVIEW

A harmony of contrasts and clashes

McGinnis, Swallow, and Lande take The Lilypad with an evening of jazz

★★★★☆

Steve Swallow, Art Lande, and Mike McGinnis

The Lilypad

April 21

By Mahi Shafiullah
STAFF WRITER

COURTESY OF MIKE MCGINNIS

The jazz trio Art Lande, Steve Swallow, and Mike McGinnis plays at a previous concert.

I have always loved live music much more than the recorded variant. For me, watching the people who make music is an important part of the experience: their emotions, the joy and the hardship that comes with channeling music out into the world makes the whole experience much more salient than enjoying music in solitude. Jazz concerts are even more powerful — it is not just live music, it is *living* music: music that comes into existence with the audience, grows with and into the atmosphere, takes shape right in front of you, and morphs into something new as the seconds pass by.

So when The Lilypad, located just a mile from MIT, offered a chance to experience an evening of live jazz, I did not think a second time before accepting the invite, and I am glad I didn't from the moment I walked in to The Lilypad. It's hard to find if you don't know what you're looking for. No bigger than a regular storefront, the Lilypad can only hold about forty people — which is great if you are looking for an intimate concert. The walls are hand-painted with murals. The seating is simple enough to signal what type of patrons frequent this place: only those who seek the pleasure of music over the looks or the amenities.

We started right at 5:30, with Mike McGinnis introducing the veteran jazz musicians Art Lande and Steve Swallow. If the fact that the trio had more than a hundred years of experience between the three of them was not enough to make you sit up, then surely their music would have done so. First, the trio played three improvisations and then three previously composed pieces. But in both cases, the living, evolving music did not let my attention wander. From time to time, It made the audience wait with bated breath, and at other times, swept them off their feet to a different place entirely.

The best part of the concert was of course the contrast between McGinnis and the two veteran musicians, Lande and Swallow. McGinnis has previously called them both his heroes and seeing him play with them is a treat in itself. The juxtaposition of his spontaneous, energetic music with Lande and Swallow's self-assured style that only comes with age and experience truly sets itself apart. Given this much context, every little move becomes significant, like McGinnis losing himself in Swallow's electric bass, or the small gesture by Lande motioning McGinnis to join him in their improvisation. The signature unconventional moves by Lande himself are also dazzling, like his recitation from a book in the middle of an improvisation, or his use of his piano as a percussion instrument.

If you have a free evening coming up and there's a jazz concert going on, I suggest you go and check it out. You may stumble into the next Art Lande or Steve Swallow. Perhaps if you are lucky — like I was — you may stumble into the real legends and get to tell the story about how you learned to stop worrying and love the music.

MOVIE REVIEW

When the government can take your land without good reason

Little Pink House presents the narrative surrounding the landmark Supreme Court eminent domain legal case

★★★☆☆

Little Pink House

Directed by Courtney Moorehead Balaker

Screenplay by Courtney Moorehead Balaker

Starring Catherine Keener, Jeanne Tripplehorn, Callum Keith Rennie

Rated NR

Now Playing

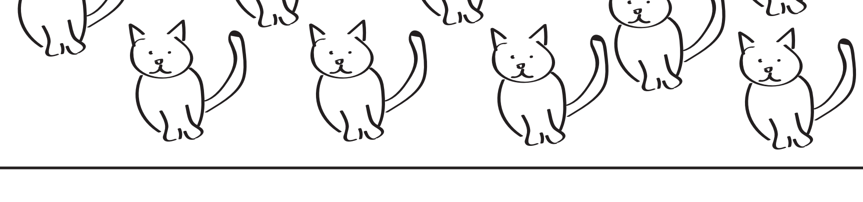
By Gabriella Zak

In the attempt to revitalize New London, Connecticut's depressed economy, the state's politically ambitious governor and lackies have convinced Pfizer to plan a redevelopment of the town's blue-collar neighborhood. When soft-spoken resident Susette Kelo (Catherine Keener) and her fellow neighbors refuse to leave their homes, the governor invokes eminent domain to acquire the homes by legal force. Unwilling to give up her home, Kelo decides to take legal action, employing the help of a pro-bono law firm. Ultimately the case winds up in the hands of the Supreme Court who decisively side with the State of Connecticut and uphold their right to eminent domain.

While *Little Pink House* makes an admirable attempt at conveying the complexities of the real-life case in an entertaining and palatable form, the film falls short on both ends. Visually, the film lacks any luster, with repetitive and dull images filling one scene to the next. The only interesting imagery is perhaps of the pink house itself. Bizarre and choppy cuts continually remove the audience from the viewinwg experience, and tonal dissonance pervades. While Keener gives a strong performance as Kelo, there is only so much you can do with an undeveloped character. Kelo's backstory is brief and disjointed, and the audience only glancingly sees her romance with her new partner (Callum Rennie). With no emotional connection for the viewer to latch onto, Kelo's most critical arguments for saving her home ring hollow. The movie calls for our sympathy, but doesn't convince us to give it.

To Balaker's credit, the film breaks down the years-long journey from local New London court to Supreme Court in such a way that the technicalities of the legal proceedings don't weigh on the narrative itself. *Little Pink House* thankfully shows more as a drama than as a documentary — though, a very one-sided documentary. With no room for dissenting opinion, *Little Pink House* is an hour and a half long attack on eminent domain without pausing for considering its defense. Its total resolution to emotionally discrediting eminent domain leaves no doubt on the obvious message of the film, but for the impartial viewer can at times be frustrating. Sometimes the strongest arguments address the perceived benefits of the opposing side. Perhaps Balaker should have taken some inspiration from the lawyers she studied and directed for the film.

Little Pink House is opening May 4 at Landmark Theatres.



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BAKER HOUSE PIANO DROP
2018
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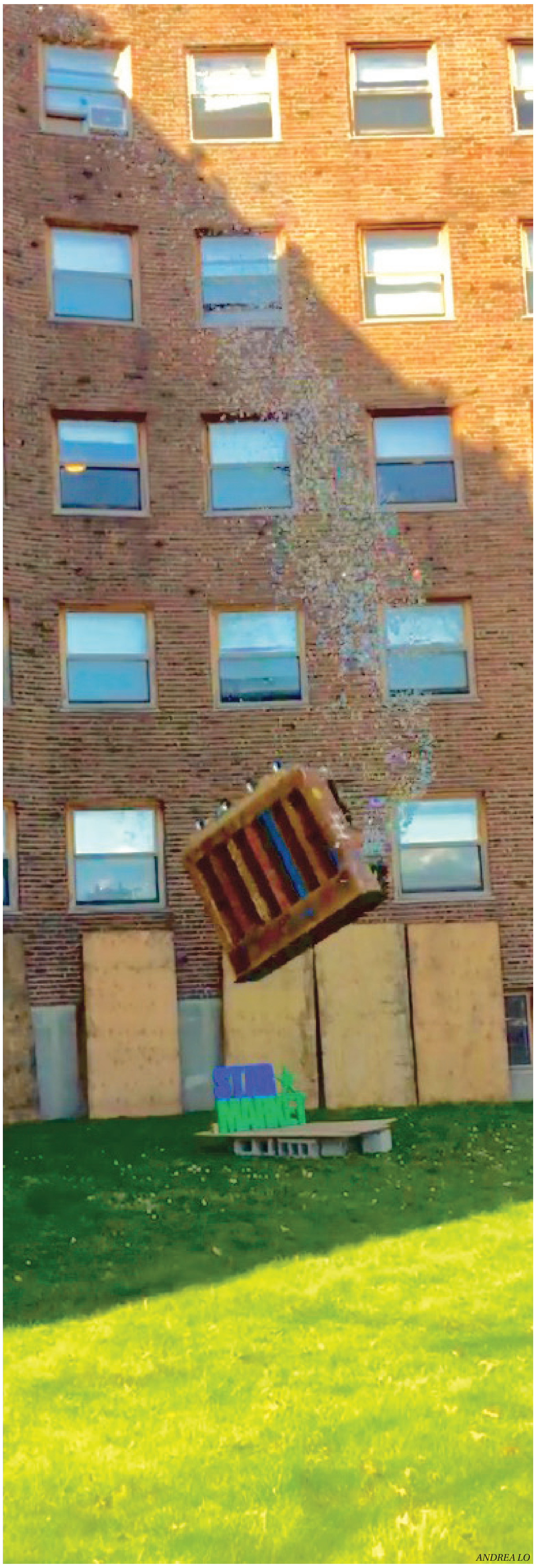
ALEXANDER JERMOE SANDBERG—THE TECH

Baker *Piano Drop*

The annual Baker House Piano Drop, held on drop date each spring semester, fell on April 26 this year. Students gathered from all over campus around Baker courtyard to see the Piano Drop and enjoy the accompanying local food fair — these photos capture parts of it.

ALEXANDER JERMOE SANDBERG—THE TECH

ALEXANDER JERMOE SANDBERG—THE TECH



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ADIB HASAN—THE TECH

ALEXANDER JERMOE SANDBERG—THE TECH

STUDENT SPOTLIGHT

A venture capitalist of many talents

Meet Myra, a very socially active junior

DANA DABBOUSI

Myra is the 2017 president of the MSA and a self-proclaimed overuser of face masks.

By Tafsia Shikdar

STAFF WRITER

How do you like McCormick?

I've lived on the same floor since freshman year, so McCormick is my home. I love it. There is a certain stereotype which I don't really get — what I want from a dorm are the 3 "C"s: close friends, cleanliness and convenience. I was very lucky to be put on the best floor in McCormick, in my humble, unbiased opinion. I remember that on the day my roommate and I moved in, an upperclassman cooked us dinner. I don't like being on the meal plan, but I guess you can't have it both ways.

Why did you choose Course 6-2?

My entire life, I thought I wanted to do Course 16 (Aerospace Engineering). I owned a mini telescope, I went to space camp during middle school, and I wanted to work for NASA. However over freshman IAP I took part in a UROP with Professor Grossman, my 3.091 (Introduction to Solid State Chemistry) professor. This convinced me to declare Course 3 (Material Science and Engineering) when I declared Early Sophomore Standing for the spring semester. Yet, during the spring semester, I took 6.01 (Introduction to EECS via Robotics) with my best friend, and ended up loving it enough to switch my major to Course 2 (Mechanical Engineering) in May. However, at the end of freshman summer, I switched to 6-2. I guess this is a story of how I'm just very easily influenced.

Why did you choose to minor in Course 17?

I like taking classes exploring different areas of the world. I took the 17.41 (Introduction to International Relations) first, then 17.568 (Comparative Politics and International Relations of the Middle East), since I went to high school in the Middle East. As a graduate class, the work was very intense, but I loved it and wanted to continue.

When did you move to the Middle East?

Born in Alabama, I lived in Virginia from age four, up to seventh grade. Then, my family moved to Saudia Arabia due to my dad's job. We lived in an American compound, which is a small community of people with Western passports — Americans and some Australians, although about half the people were Saudi Arabians. I went to an American high school there. Living abroad gives you such a different world view, and I ended up travelling a lot more since it was closer to Pakistan, Europe, etc. You can't know anything about a certain place or position until you live through that experience. It was enlightening seeing people live their lives outside the Western bubble I grew up in — before, I couldn't imagine living without Disney Channel on TV.

How would you describe the MSA?

We host a big dinner every semester, as well as small fun events throughout like barbeques and game nights. Really, it's a tight knit friend group of 80 or so people. I became part of the executive community in freshman spring and ran for president the next year. Through my classes, I've made good friends to hang out and do homework with, but from joining a student group, I met people from other years who could act as mentors. As a freshman, MSA upperclassmen guided me through things like UROP applications and even just sending professional emails. Becoming a leader within this community and now watching my mentees themselves become leaders has been amazing — I couldn't believe that the prefrosh I met were getting their sophomore rings last week!

Our biggest event of the year is the Islamic holy month of Ramadan, during which Muslims fast all day. The MSA hosts Iftar, the evening meal to break the fast, every evening for the MIT and local community. Sometimes there are people from the local community who bring tupperware because this is the only food they have access to. At college, it's easy to get into a bubble and forget about the world outside. Through the MSA I've been able to meet people outside this bubble and give something back to Cambridge.

What else do you like to do in your free time?

I like to consider myself a writer. My goal when I came to MIT was to publish a book before I finished college, although I don't think that's going to happen. I write short stories, and I also joined an online program in sophomore year of high school, NaNoWriMo, that promotes November as National Novel Writing Month. So every November for the past six years, I wrote a piece that I worked on throughout the year. Additionally, a weird thing I like to do in my spare time is face masks. I do one almost everyday — I don't think that is good for your skin but I love them. If you ever want to do a face mask, let me know.

Looking back as a junior, do you have any advice for younger years?

It's very easy to feel alone at MIT, even when you are surrounded by people. You may feel like no one is looking out for you, or that you have no one to talk to, but the reality is, there are people there. MIT sucks sometimes, and everyone knows it. It's not even about being depressed or having a mental disorder where you need to see a professional — sometimes you just feel down, and you should just talk to someone. We all need to build each other up when MIT tries to break us down.

What are your plans for the future?

My long term goal is to be a venture capitalist. They're the people who give money to start-ups, usually funded by firms that listen to pitches and decide to invest in ideas they like. In 15.359J (Innovation Engineering: Moving Ideas to Impact), I learned that there is a definite need for more diversity within these teams, due to the simple fact that people tend to invest in people who look and act like themselves. I will be interning at IBM this summer, which hopefully leads to future opportunities. It's a big step away from robotics, but it's important to have a tech background while listening to start-up pitches, while I'll probably satiate my engineering side by filling my garage with cool little gadgets I've made.

Would you rather eat ketchup on ice cream or chocolate sauce on a hot dog?

The hot dog — I hate ketchup. I'll dip the tip of my fry in ketchup, but that's enough for me.

Would you rather be the best player on a horrible team or the worst player on a great team?

Worst player, since it's all about team spirit and I feel like I've done this anyway! I was the worst kid on the soccer team, the basketball team, the swim team...I've been part of a lot of teams, and I'm pretty sure I was always the worst!

What one thing would you want to have with you on a desert island?

A plane. Even if it's a crashed plane, I can hopefully figure something out as an engineer!

What one value do you prize above all others?

Having respect for the people around you. Maybe this is a Southern thing, but where I'm from, whenever you pay for something you say: "Thank you, have a great day," and the employee will say that back, and you might even have a conversation. I think it's important to be respectful to everyone.

Myra Ahmad, Class of 2019

Major in Course 6-2 (Electrical Eng. and Comp Sci), Minor in Course 17 (Political Science)

McCormick

From Virginia

2017 President of Muslim Students' Association (MSA), recreational writer, overuser of face masks

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BY THE NUMBERS

11 signs that the end is in sight

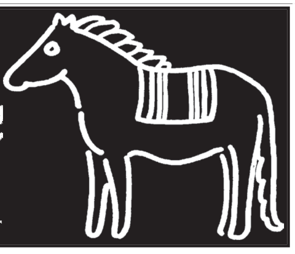
If you're starting to feel like the semester should be over already, you aren't alone

By Josephine Yu

EDITOR

It's May, which means we're entering the last month of school. It feels like this one might be the longest one yet. But fear not! Here are 11 signs that we're almost there:

1. The weather is consistently over 60, sunny, and not windy. That's summer, right?
2. Harvard kids are starting finals.
3. Your friends at other schools are making summer plans that you can't participate in because you'll still be taking exams.
4. The sophomores have their brass rats — they're halfway done!
5. People are asking about your summer plans.
6. You're starting to wonder if your notebook has enough pages to last until the final lecture.
7. Piazza is flooding with questions like "Is the last pset dropped?" "What are final grade cutoffs?" and "Do you need to pass the final to pass the class?"
8. Pre-registration opened this week.
9. You're locked in a battle between your increasing burnout and the need to finish your final projects.
10. Kids are arriving to class later day by day. (You're also sleeping in more often than you should.)
11. Your dorm finalized rooming selections for next semester.



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Citizen science

Aerocene project hopes to put research into the hands of citizens

Aerocene Explorer Performance and Interactive Display

MIT visiting artist, Tomás Saraceno

April 20–21

MIT Killian Court and Memorial Lobby

By Johnson Huynh
STAFF WRITER

The sky was painted a crystal blue, and from all corners of MIT, people strolled out in shorts and sunglasses. Meanwhile, a gigantic black balloon was floating on Killian Lawn. Animated by what could only be described as an otherworldly force, the object writhed midair. A simple string tethered it to the ground as people looked up in awe at it. EAPS scientists calmly stood before it, chatting away with passerbys. The balloon continued to swim through the air, propelling itself like a jellyfish.

On April 20 and 21, in a collaboration between artist Tomás Saraceno and a few of the EAPS scientists, one of the Aerocene Explorers was brought to our campus. It is a Mylar balloon, crafted with the sole purpose of keeping itself aloft without the use of fossil fuels. Instead, it uses the power of the sun, as explained by researcher Lodovica Illari. The sun warms up the air within the confines of its Mylar and causes it to rise. While up in the air, it continues to twist and turn due to the infrared radiation.

In addition, a small detector is attached to one of the corners of the balloon. Its purpose is to record the level of pollutants from the surrounding area. When I talked to Professor Illari about some of the data that it produced, she led me away from the strange artwork to a screen within Lobby 10. Every few minutes, the monitor would show a different graph with information that was being relayed in real time from the detector. She gushed about the prospects of using this detector in combination with this type of airborne vehicle, saying that it “is friendly with the earth” since it “is powered by the sun.”

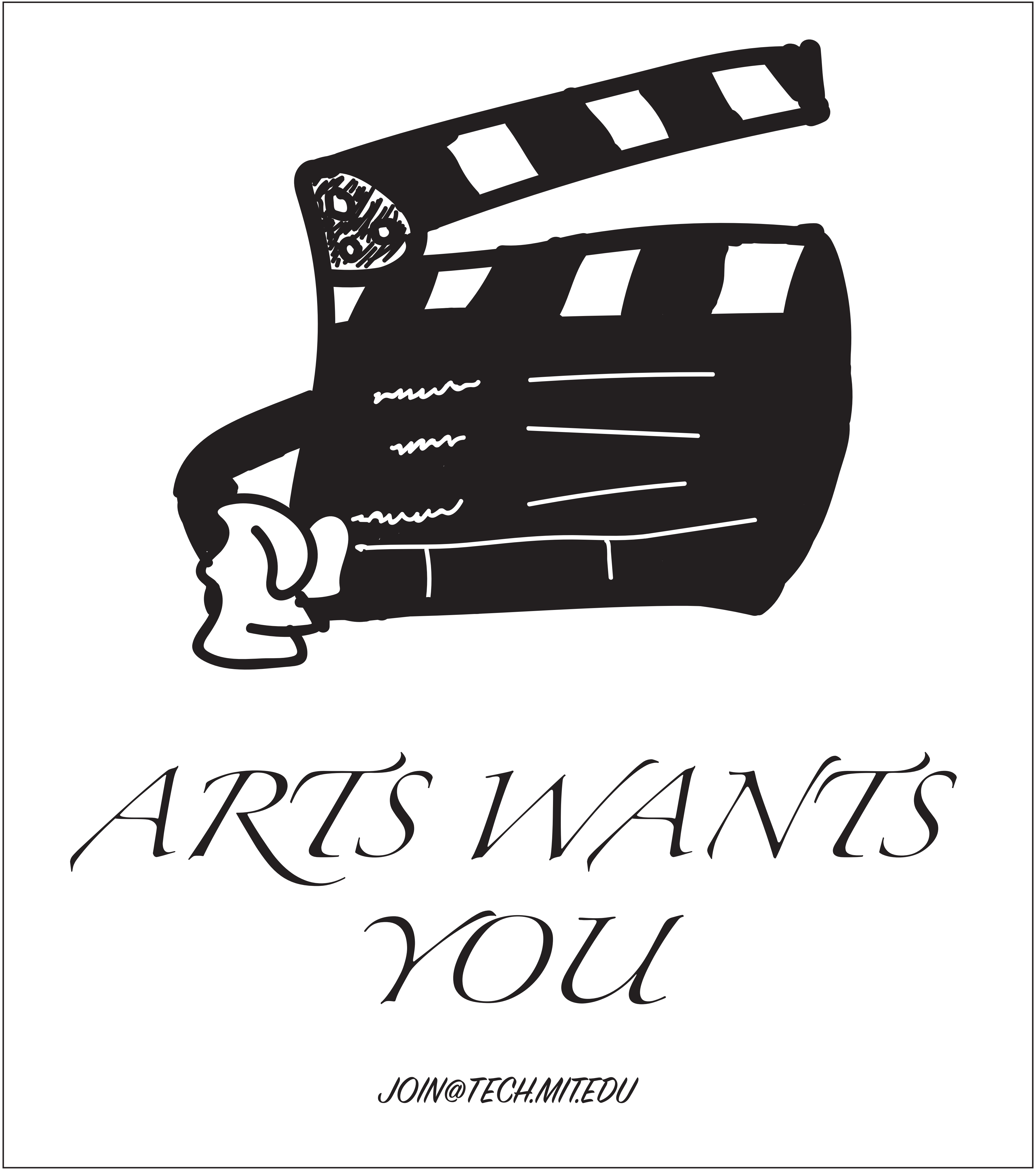
Despite all of the scientific elements of Aerocene, the initiative itself is still a performance. In fact, a phrase I heard tossed around a lot in conversation with was “citizen science.” Simple in concept but profound in its effect, citizen science has the potential to unite communities all across the world against climate change. “You get everyone gathering data, like crowdsourcing,” added Illari.

Indeed, this gelatinous creature really did function just like an airborne sculpture. Children stopped running through Lobby 10 to gaze upon the Mylar beast. A few of them asked questions to professors doing demos in the hallway. There were even a couple whose eyes glimmered with excitement as they listened to people such as Illari. “If you can learn in a fun and a playful way, you can raise awareness,” explained Leila Kinney, the Executive Director of Arts Initiative and MIT CAST.

And maybe that’s all it takes for change to start: a few people from the neighborhood simply wondering how they can do something that has a global impact. When asked how this might bring people together to conduct citizen science, Professor Jesse Kroll replied that there really is a “community aspect and a research aspect.”

Overall, this outdoors performance was a wonderful complement to the day’s weather. Not only did it raise awareness about how humans affect our world, but it also brought people together under the guise of being a typical art piece. Nothing could be further from the truth — this pitch-black balloon floated in the very intersection between art and science.

Visit aerocene.org for more information about this project.



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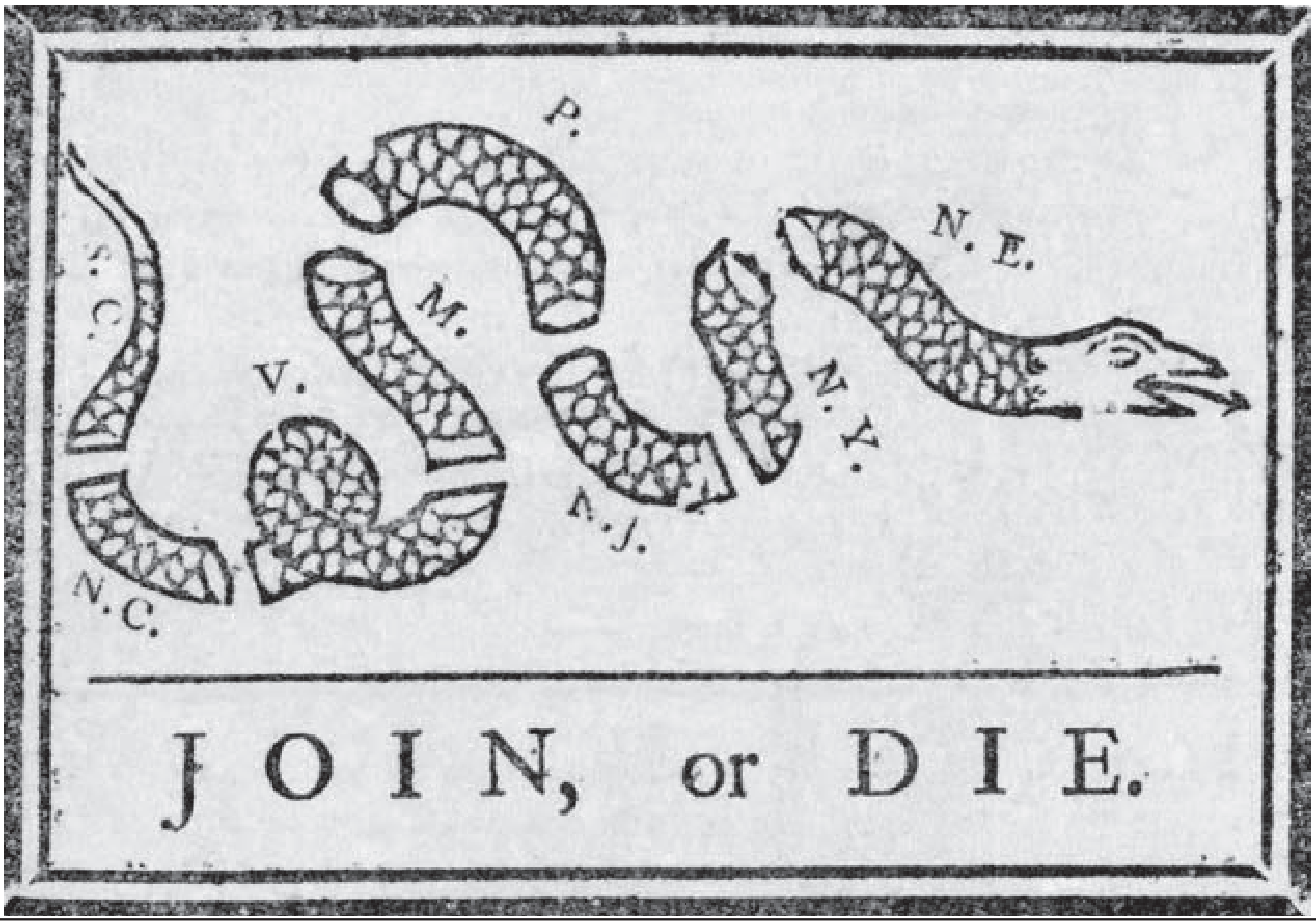

HUMANS NEED NOT APPLY

Reflections on Artificial Intelligence and the Future of Work

THURSDAY
MAY 10
5:00 PM
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The J. Herbert Hollomon Memorial Symposium honors the late Herb Hollomon, a distinguished scientist, public servant and MIT faculty member.

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Moderater:
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Professor of Philosophy, Harvard University

Speakers:
Thomas Kochan
George Maverick Bunker Professor of Management, MIT Sloan

Andrew McAfee
Co-Founder, MIT Initiative on the Digital Economy

Elisabeth B. Reynolds
Executive Director, MIT Industrial Performance Center; lecturer on Innovation and Economic Development, Urban Studies and Planning

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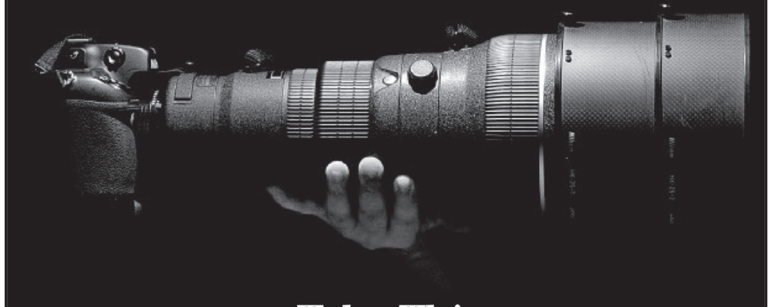
It's Dangerous to Go Alone!



Take This.

photo@tech.mit.edu

Solution to Lunch Plate

from page 14

V	A	S	E	S	■	A	R	T	S	■	P	V	T	■
I	N	T	R	O	■	P	E	A	T	■	R	O	O	F
S	T	O	R	M	■	R	I	T	E	■	I	D	O	L
A	S	P	■	B	E	I	N	A	P	I	C	K	L	E
■	■	■	R	E	A	L	■	■	U	N	E	A	S	E
O	T	T	E	R	S	■	P	I	P	E	■	■	■	■
A	U	R	A	■	E	V	E	R	■	E	S	S	E	S
K	N	U	C	K	L	E	S	A	N	D	W	I	C	H
S	E	E	T	O	■	S	O	S	O	■	E	L	H	I
■	■	■	■	R	A	T	S	■	T	I	P	T	O	P
S	E	A	L	A	B	■	■	H	U	N	T	■	■	■
C	A	S	I	N	O	C	H	I	P	S	■	B	E	T
A	T	O	M	■	D	U	E	L	■	E	A	R	L	Y
M	I	N	I	■	E	T	A	L	■	C	L	A	M	P
■	N	E	T	■	S	E	T	S	■	T	E	N	S	E

Are you dying to tell someone your latest ephiphany?

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Solution to Failure

from page 14

3	2	7	9	4	8	1	6	5
1	6	8	3	5	2	7	9	4
5	4	9	1	6	7	3	2	8
4	9	1	2	8	3	6	5	7
6	7	3	5	9	4	2	8	1
8	5	2	6	7	1	4	3	9
2	3	4	8	1	9	5	7	6
7	8	5	4	3	6	9	1	2
9	1	6	7	2	5	8	4	3

Solution to Success

from page 14

3	4	1	5	6	2
5	6	3	1	2	4
6	1	4	2	3	5
2	3	6	4	5	1
4	5	2	6	1	3
1	2	5	3	4	6

Fabric flies at annual Prom Dress Rugby Tournament

Babson emerges victorious as princesses and Biblical figures clash in the rain

By Deanna Delgado

The MIT Women's Rugby Team hosted their annual Prom Dress Rugby Tournament Sunday. College rugby teams from around Boston traveled to MIT's Briggs Field to play the game they love in the best way possible: while wearing prom dresses. In attendance this year were MIT, Brandeis, Wellesley, Mount Holyoke, WPI, and Babson.

As the tournament began and the teams warmed up in the rainy drizzle, I spotted some noteworthy outfits. A few MIT players sported a character theme: Captain Alexa Jaeger '18 wore a beautiful and long Snow White costume (courtesy of her roommate), Chris Sacha '19 wore a two piece Esmeralda costume, Meghan I. Cum '19 wore the dress worn by Dorothy in *The Wizard of Oz*, and Mariana Gomez '20 wore a dress with The Flash logo across the front.

Brandeis freshman Eli Lovich came dressed as Moses in a shimmering robe. WPI stood out as the only team wearing a consistent uniform: game jerseys with matching red skirts. Across the board, many rugby players wore the most elaborate dresses they could find, and by the end of the day, the dresses were happily ripped to shreds.

Jaeger commented on the weather that day, "There is nothing more fierce than playing rugby in dresses in the rain. It was also really awesome to have so many fans come out to watch us play, even in the rain."

The players may have been wearing prom dresses, but that did not stop them from playing hard. For MIT, Hansa Srinivasan G outran the opponents' defense again and again in a dashing tuxedo t-shirt to score fast tries out wide. Sacha, in her rookie season, started each game with amazing drop kicks, allowing MIT to gain lots of ground right from the start. Gomez demonstrated that size is no limitation, stopping opponents twice her size and making a 20-meter run using mean stiff arms to dart through two defenders. In the end, MIT placed third, but that was not the end of MIT's gameplay, as many players had been assisting Brandeis and Wellesley, who each lacked a full squad, in their games. MIT's Jaeger, Deanna Delgado '19, and Abby McGee '20 went so far as to play in the tournament final, a fierce clash between Wellesley and Babson. With a perfect record, Babson swept the tournament, giving the rest of the teams motivation for the fall season.

DEANNA DELGADO—THE TECH

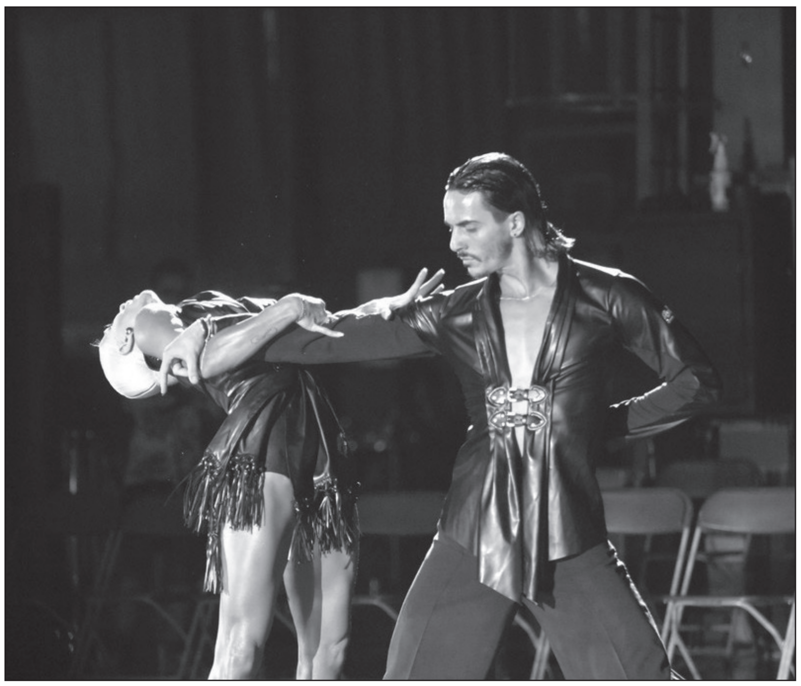
MIT postdoc Chloe Delepine carries the ball in the Prom Dress Rugby Tournament Sunday at Briggs Field.

The Prom Dress 7s tournament was the last tournament of the spring season, and for some, the last tournament before graduation. Jaeger said that "rugby has been a great way to meet people from all over campus and all across majors. The social component of being on a team has been a huge form of stress relief for me over the past for years, in addition to all the physical activity."

Rookie Sacha added "I'm so glad I decided to give rugby a try, and I can't think of a better way to have ended my first season."

ALEXANDER JERMOE SANDBERG—THE TECH

Anna Matus motions at her dance partner, Gabriele Goffredo, during their performance at the 2018 MIT Ballroom Dance Team Professional Latin Showcase.



ALEXANDER JERMOE SANDBERG—THE TECH

Gabriele Goffredo (right) and Anna Matus (left) link hands after one of their performances at MIT Ballroom Dance Team Professional Latin Showcase April 28.

Are you handy with a pen?

join @ tech.mit.edu

Failure

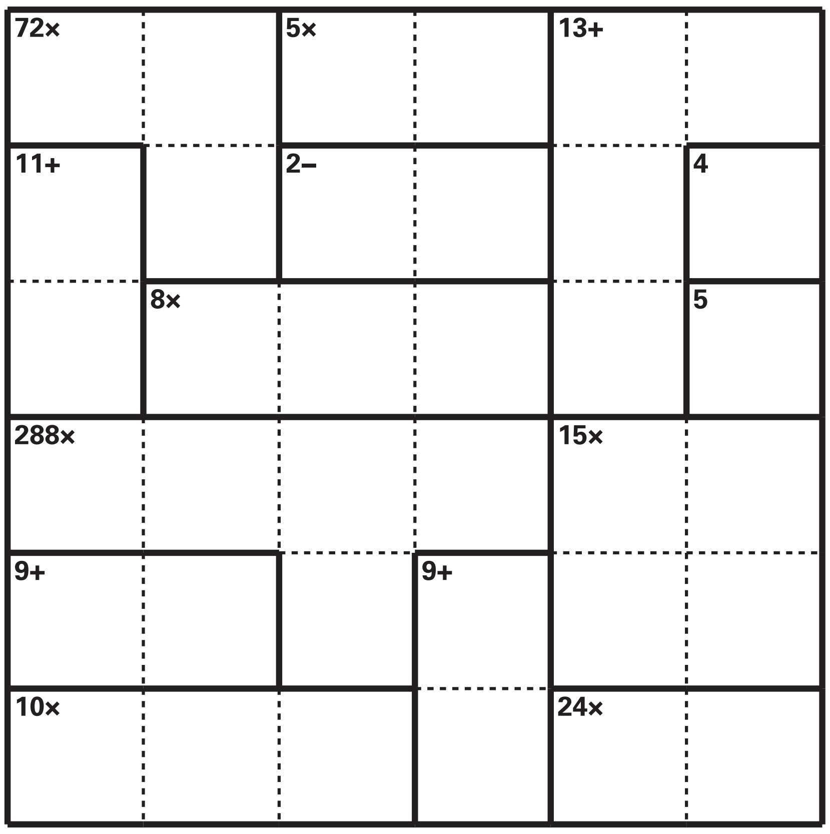
Solution, page 12

3					8		6	
			3	5		7	9	
		9	1	6				8
4	9							
6		3				2		1
							3	9
2				1	9	5		
	8	5		3	6			
	1		7					3

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Success

Solution, page 12


72×
5×
13+
11+
2–
4
8×
5
288×
15×
9+
9+
10×
24×

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

Lunch Plate by some Gail Grabowski

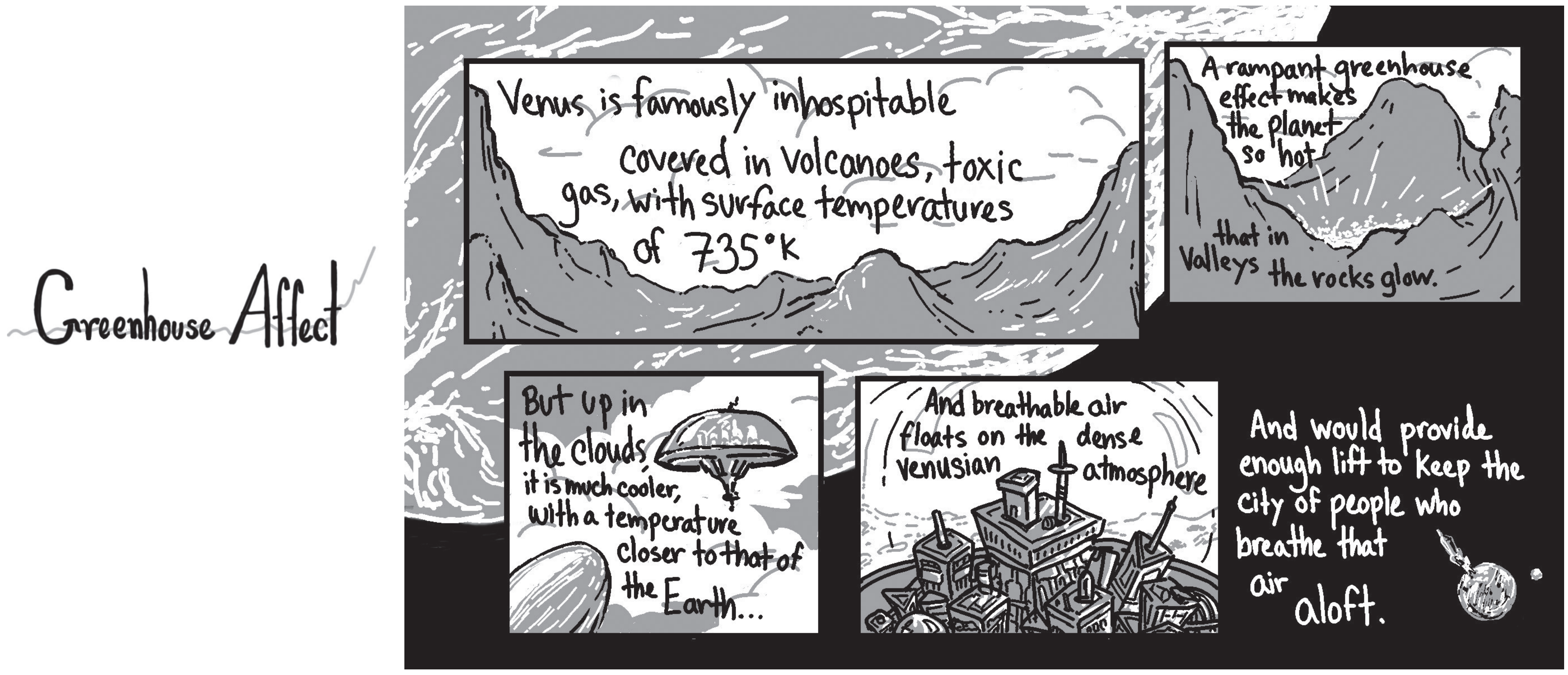
Solution, page 12

ACROSS
1 Bouquet holders
6 __ and crafts
10 Lowest army rank: Abbr.
13 Opening statement, for short
14 __ moss (gardening material)
15 Santa's landing area
17 Blizzard or hurricane
18 Formal ceremony
19 Fan club favorite
20 Egyptian snake
21 Find yourself needing help
24 Genuine
25 Anxious feeling
26 Playful aquatic mammals
29 Plumbing tube
31 Mystical glow
32 Hardly __ (rarely)
34 Letters before tees
39 Fist in the mouth, slangily
42 Take care of
43 Just average
44 Grades K-12, for short
45 Lab-maze runners
47 First-rate
49 Underwater research site
53 Try to track down
54 Gambling tokens
57 Wager
60 Molecule part
61 Sword fight
62 Ahead of time
64 Short skirt
65 List-shortening abbr.
66 Workshop gripper
67 Ping-Pong table barrier
68 Full collections
69 Jittery

DOWN
1 Passport stamp
2 Pantry invaders
3 Eight-sided street sign
4 Make a mistake
5 Gloomy
6 Tax-return filing month
7 Jockey's strap
8 British "Bye-bye!"
9 Accelerate in intensity
10 Number on a sales tag
11 Russian liquor
12 Drills and saws
16 Make an escape
22 Artist's stand
23 "__ a vacation!"
24 Give feedback
26 Trees with acorns
27 Carry a __ (sing OK)
28 Factual
29 Mexican coins
30 Some S&L nest eggs
33 Three-piece suit piece
35 Used a broom
36 River sediment
37 Canyon sound
38 Cruise vessel
40 Islamic holy book
41 Still in bed
46 Residences
48 Fly or gnat
49 Con game
50 Stay home for supper
51 Two hearts that beat __
52 Maximum road speed
53 Small mountains
55 Adorable
56 What a furnace provides
57 Raisin __ cereal
58 Shade trees
59 Work at a keyboard
63 Pub beverage

1	2	3	4	5	■	6	7	8	9	■	10	11	12	■
13					■	14				■	15			16
17					■	18				■	19			
20			■	21	22					23				
■	■	■	24				■	■	25					
26	27	28				■	29	30			■	■	■	■
31				■	32	33			■	34	35	36	37	38
39				40					41					
42					■	43				■	44			
■	■	■	■	45	46			■	47	48				
49	50	51	52			■	■	53				■	■	■
54						55	56				■	57	58	59
60				■	61				■	62	63			
64				■	65				■	66				
■	67			■	68				■	69				

Venus by Mehitabel Glenhaber


Greenhouse Affect
Venus is famously inhospitable covered in volcanoes, toxic gas, with surface temperatures of 735°K
A rampant greenhouse effect makes the planet so hot that in Valleys the rocks glow.
But up in the clouds it is much cooler, with a temperature closer to that of the Earth...
And breathable air floats on the dense Venusian atmosphere
And would provide enough lift to keep the city of people who breathe that air aloft.

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Héctor Javier Vázquez Martínez '19 Joshua Woodard '18

Arthur C. Smith Award
Will Broadhead, Associate Professor, History

Association of MIT Alumane (AMITA) Senior Academic Award
Ekin Karasan '18

Bose Award for Excellence in Teaching
Professor Srini Devadas, Department of Electrical Engineering and Computer Science

Bridge Builder Award
CASE (Class Awareness Support and Equality)

Earll M. Murman Award for Excellence in Undergraduate Advising
Gigliola Staffilani, Department of Mathematics

Edward L. Horton Fellowship Award
Jessica A. Carr, Department of Chemistry

Everett Moore Baker Memorial Award for Excellence in Undergraduate Teaching
Professor Anna Mikusheva, Department of Economics

Frank E. Perkins Award
Professor Kripa K. Varanasi, Department of Mechanical Engineering
Professor Pavel Etingof, Department of Mathematics

Golden Beaver Award (Group or Individual)
MIT Visiting Student Association (VISTA) David Dellal '18 Xijia Zheng G

Goodwin Medal
Or Gadish G

Gordon Y. Billard Award
Stu Schmill '86, Dean of Admissions and Student Financial Services, OVC
Christopher Terman, Executive Director, Center for Transportation & Logistics

Graduate Teaching Award
Neil S. Gaikwad, Media Arts & Sciences
Natasha Seelam, Department of Chemical Engineering

Harold and Arlene Schnitzer Prize in the Visual Arts
Andrea Ling G

Irwin Sizer Award for Most Significant Improvement to MIT Education
Dr. Chris Caplice, Dr. Eva Ponce, and the Supply Chain Management MicroMasters/Blended Master's Program Team

James N. Murphy Award
Kyle Keane, Department of Materials Science and Engineering

John S.W. Kellett '47 Award
Kenny Chen G

Karl Taylor Compton Prize
Interfraternity Council Sexual Misconduct Committee
Officers of the Graduate Student Council
Miranda McClellan '18

Larry G. Benedict Leadership Award
Sahar Hashmi G Malte Ahrens '18

Laya and Jerome B. Wiesner Student Art Awards
Laura Serejo Genes G Adam Jedidiah Haar Horowitz G
Julia Rue '18 Tal Scully '18

Laya W. Wiesner Award
Tchelet Segev '18

Laya Wiesner Community Award
Kate Mytty, Center for Real Estate

Louis Sudler Prize in the Arts
Bertrand Stone '18

Outstanding Event Award
MIT European Club for the MIT European Career Fair

Outstanding New Leader Award
Jessica Quaye '20

Patrick J. McGovern '59 Entrepreneurship Award
Ingrid Oelschlager G
Gregory Ekchian G

Paul Gray Award for Public Service
Justin Steil, Department of Urban Studies and Planning

Priscilla King Gray Award for Public Service
Helena Ma '19
Yazmin Guzman '18

Ronald E. McNair Scholarship Award
Chloe Garden '18 Kathleen Guerra '18 Kristopher Wiggins '18

William L. Stewart, Jr. Award
MIT Visiting Student Association (VISTA) Clio Macrakis '18 Flora Su G
Tchelet Segev '18 Tori Danielle Finney '18 Kenny Chen G

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